

**1995 CSI SECTION 08120 Aluminum Doors And Frames**  
**2004 CSI SECTION 08 11 16 Aluminum Doors And Frames**

**Part 1 – General**

1.01 Summary

- A. Section includes:
  1. Thermally Broken Aluminum Doors and Frames
- B. Related Sections:

1.02 References

- A. American Architectural Manufacturers Association (AAMA)
- B. American Society for Testing and Materials (ASTM)
- C. Aluminum Association (AA)
- D. National Fenestration Rating Council (NFRC)

1.03 System Description

- A. General: In addition to requirements shown or specified, comply with:
  1. Applicable provisions of AAMA Aluminum Storefront and Entrance Manual for design, materials, fabrication and installation of component parts.
- B. Design Requirements: Arcadia WS512T Series Wide Stile Thermal Entrance is a single source package of door, door frame and hardware that is engineered for moderate to high traffic.
- C. Performance Requirements: Each assembly tested by a recognized testing laboratory or agency in accordance with specified test methods.
  1. Tested by the dual moment corner joint strength test.
  2. Thermal Transmittance (U-factor) shall not be more than (\_\_\_\_) BTU/hr/ft<sup>2</sup>/°F per NFRC 100.
  3. Condensation Resistance (CR) shall not be less than (\_\_\_\_) when gazed with (\_\_\_\_) center of glass U-Factor per NFRC 500.
  4. Solar heat gain coefficient of no greater (\_\_\_\_) as determined according to NFRC 200.
  5. Sound Transmission Class (STC) and Outdoor-Indoor Transmission Class (OITC) in accordance with ASTM E 90.

1.04 Quality Assurance

- A. Single Source Responsibility:
  1. Obtain entrances, storefronts, ribbon walls, window walls, curtain walls, window systems, and finish through one source from a single manufacturer.
- B. Provide test reports from AAMA accredited laboratories certifying the performances as specified in 1.03.

1.05 Warranty

- A. Door warranted against failure and/or deterioration of metals due to manufacturing process for a period of two (2) years.

**Part 2 – Products**

2.01 Manufacturers

- A. Acceptable Manufacturers:
  1. Arcadia, Inc., 2301 E Vernon, Vernon, CA. Telephone 323/269-7300, Fax 323/269-7390.
- B. Acceptable Products:
  1. Arcadia, Inc., WS512T Series, Wide Stile Thermal Door 1-3/4".
    - a. Vertical Stiles: 5 inches.
    - b. Top Rail: 4 1/2 inches.
    - c. Bottom Rail: 10 1/4 inches.
    - d. Glazing Stops: (Square or Beveled) snap-in type for \_\_\_\_\_ (1/4 or 1 inch) infill.
  2. Major portions of the door stiles a nominal .125 inches and glass stops .050 inches thick.

2.02 Materials and Accessories

- A. Door members: Extruded 6063-T6 aluminum alloy (ASTM B221-Alloy G.S. 10a T6).
- B. Thermal barrier consists of two glass reinforced polyamide nylon struts.
- C. Screws, fastening devices, and internal components: Aluminum, stainless steel, or zinc plated steel in accordance with ASTM A-164. Shall be aluminum or steel, providing the steel is properly isolated from aluminum.

- D. Glazing Gasket (compression-type design).
- E. Hard-backed poly-pile weatherstripping in door and /or frame. Meeting stile of all pair of doors have a double line hard- backed poly-pile astragal.
- F. Thermally broken extruded aluminum threshold with ribbed surface.

2.03 Hardware

- A. Hardware for aluminum doors and door frames shall be the entrance manufacturer's standard.
- B. If custom hardware is to be furnished by others, physical hardware must be submitted prior to any fabrication.

2.04 Finish

- A. Finish all exposed areas of aluminum and components as indicated.
  1. An Architectural Class II or I color anodic coating conforming with AA-M12C22A34/AA-M12C22A44.
    - a. Anodized finish color shall be Colornodic \_\_\_\_\_. (AB1 Light Champagne, AB2 Champagne, AB3 Light Bronze, AB4 Medium Bronze, AB5 Standard Medium Bronze, AB6 Dark Bronze, AB7 Standard Dark Bronze, AB8 Black.)
  - (or) 1. An Architectural Class II or I anodic coating conforming with AA-M12C22A31/AA-M12C22A41.
    - a. Anodize finish color shall be Colornodic \_\_\_\_\_ (#11 Clear)
  - (or) 1. Fluorocarbon Coating: AAMA 2605.2.
    - a. Resin: 70% PVDF Kynar 500/Hylar 5000.
    - b. Substrate: cleaned and pretreated with chromium phosphate.
    - c. Primer: Manufacturer's standard resin base compatible coating. Dry film thickness.
      - (a) Extrusion: Minimum 0.20 mil.
    - d. Color Coat: 70% PVDF, dry film thickness.
      - (a) Extrusion: 1.0 mil.
    - e. Color: As selected by Architect.
    - f. Acceptable Coatings Manufacturers:
      - (a) PPG Industries, Inc.
      - (b) Valspar Corporation

2.05 Door Fabrication

- A. Stiles and rails shall be tubular sections accurately joined, flush and hairline at corners with heavy concealed reinforcement brackets secured with machine bolts, with optional MIG weld. Exposed screws not permitted.
- B. Each door leaf equipped with an adjusting mechanism, located in the top rail near the lock stile.
- C. Prepare internal reinforcement for door hardware.

**Part 3 – Execution**

3.01 Examinations

- A. Examine conditions and verify substrate conditions are acceptable for product installation.

3.02 Installation

- A. Install in accordance with approved shop drawings and manufacturers installation instructions.

3.03 Field Quality Control

- A. Make all necessary final adjustments to attain normal operation of each door and its mechanical hardware.

**END OF SECTION**